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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

March 7, 2011

Larry Jensen  
Nelco Contractors, Inc.  
4520 South 100 West  
PO Box 282  
Price, Utah 84501

Subject: Initial Review of Notice of Intention to Commence Large Mining Operations, Nelco Contractors, Inc., Colton Limestone Quarry, M/049/0079, Utah County, Utah

Dear Mr. Jensen:

The Division of Oil, Gas and Mining has completed a review of your Notice of Intention to Commence Large Mining Operations for the Colton Limestone Quarry. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading. The first comment discusses the format of the plan. The Division asks that you re-submit the entire plan using the format suggested and responding to other comments.

The Division is required under UCA 40-8-404 to consider the effects of the operation on cultural resources. To do this, it is necessary to have some baseline information. Please provide one of the following

1. A statement from a licensed archaeologist that there is little likelihood of finding significant cultural resources in the area to be disturbed.
2. The results of a literature search showing that the area has already been surveyed and describing any significant resources.
3. Results of an on-the-ground survey. If any resources are located, the report needs to indicate whether they should be considered significant, i.e. eligible for listing in the National Register of Historic Places.

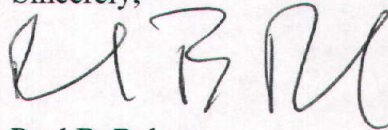




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The Division will suspend further review of the Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me at 801-538-5261 or Lynn Kunzler at 801-538-5310. Thank you for your cooperation in completing this permitting action.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. B. Baker', written in a cursive style.

Paul B. Baker  
Minerals Program Manager

PBB:lk:eb  
Attachment: Review  
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**INITIAL REVIEW OF NOTICE OF INTENTION  
TO COMMENCE LARGE MINING OPERATIONS  
NELCO Contractors, Inc.  
Colton Limestone Quarry  
M/049/0079  
March 3, 2011**

**General Comments:**

| Comment # | Sheet/Page/Map/Table # | Comments   | Initials | Review Action |
|-----------|------------------------|--|----------|---------------|
| 1         | General                | <p>The Division requests that the NOI be re-formatted so the mining and reclamation plan is in a consolidated document. As submitted, part of the plan is on the NOI form and part is in Appendix A. The mining and reclamation plan is normally in the main body of the application, and appendices are usually reserved for consultants' reports, approval from other agencies, hydrologic and bond calculations, etc.</p> <p>Except for ownership and control information on the first few pages, the NOI form is not intended to be a form that is filled out and submitted. Rather, it provides information about addressing the rules. The blanks and check boxes are for the operator's convenience, and it was not intended that the entire form be submitted.</p> <p>It is not necessary to address rules R647-4-107 and R647-4-111. These are operational and reclamation practices or standards.</p> <p>The Division can supply an electronic copy of the form that can be modified to better address the items listed above. Please contact the Division if you would like to receive the form electronically.</p> | lk       |               |
| 2         |                        | This review is for the phase 1 mining area only. The plan will need to be amended prior to mining within the phase 2 through 5 areas. (Comment only; no response needed.)  | lk       |               |



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| Comment # | Sheet/Page/Map/Table #   | Comments   | Initials | Review Action |
|-----------|--------------------------|--|----------|---------------|
| 3         | Confidential information | <p>The only information that can be considered confidential is that which relates to the nature, size, and location of the mineral deposit, proprietary information, and information protected by statute, such as cultural resources and threatened and endangered species. The lease royalty agreement is not required, so the Division recommends that it be removed from the plan.</p> <p>Confidential information must be marked as such. Please provide any confidential information as a separate document and in the text of the NOI, make specific reference to the page and section of the confidential document as to where the data, plans, maps, etc., are located.</p> | lk       |               |



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**R647-4-104 – Operators, Surface and Mineral Owners**

| Comment # | Sheet/Page/Map/Table # | Comments  | Initials | Review Action |
|-----------|------------------------|---|----------|---------------|
| 4         | Page 2                 | Please provide the name and contact information of the resident agent | lk       |               |

**R647-4-105 - Maps, Drawings & Photographs**

**105.1 - Topographic base map, boundaries, pre-act disturbance**

| Comment # | Sheet/Page/Map/Table # | Comments   | Initials | Review Action |
|-----------|------------------------|--|----------|---------------|
| 5         | Omission               | Please provide a watershed map delineating the contributing watershed to the sediment pond. The surface water erosion plan needs to discuss the design storm used to design the drainage ditch through the site and sediment detention basin. The Division does not have any specific rules for design storms. It is prudent to design for the flow from a 10-year, 24-storm or greater. The Division will accept a curve number or rational method runoff analysis based on local soil and runoff characteristics. Please provide this information and include the designs for the sediment pond and outflow ditch through the site. It was noticed that the plates delineate a ditch, but the plates do show where the drainage goes after exiting the site. | tm       |               |

**105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)**

| Comment # | Sheet/Page/Map/Table # | Comments  | Initials | Review Action |
|-----------|------------------------|---|----------|---------------|
| 6         | Page 5, Maps 2, 3, 4   | Page 5 says no more than 20 acres will be disturbed at any one time; however, Maps 2 through 4 identify the following areas of disturbance: 23 acres (Phase 1—Map 3), 4.8 acres (Map 2, Mined/Disturbed Area), and 1.4 acres (Map 2, Partially Mined Area) for a total of 29.2 acres. This does not include the catchment basin which is located in the Phase 2 area. While it is still possible to have only 20 acres of disturbance at any one time, it will be necessary to provide a mining and reclamation schedule map showing what areas will be reclaimed as corresponding areas are opened up. This schedule would need to demonstrate that no more than the stated 20 acres will be disturbed at any one time. Please note that the Division considers areas that have been reclaimed as part of the current disturbance until all reclamation standards (including successful revegetation) are met, which is usually a minimum of 3 growing seasons after the last seeding, fertilization, irrigation, etc. | lk       |               |



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| Comment # | Sheet/Page/Map/Table # | Comments   | Initials | Review Action |
|-----------|------------------------|--|----------|---------------|
| 7         | Map 4                  | This map shows a cross section of various layers of clay and limestone that will be removed. It also appears to show the reclamation slope of the highwall. The map does not show the location of the cross section, or the length of the highwall. Will it extend around the entire perimeter of the mine, or only portions of the perimeter? | lk       |               |
| 8         | Map 4                  | Map 4 shows a generalized cross section. The Division needs specific cross sections on 300 foot intervals showing the pre-mining, operational, and post-mining topography.   | whw      |               |
| 9         | Maps 2-4               | Maps 2-4 have contours at 40 foot intervals. The maximum depth of mining is scheduled to be ten feet, so the contour intervals are not adequate to show the pre-mining and post-mining contours. Please provide topographic maps than have contour intervals at a minimum of 5 feet.   | whw      |               |
| 10        | Omission               | The sediment pond needs to have a surface area and show a dimension of width and length and depth at the spillway. The culvert location needs to be shown on a drawing in relation to the sediment dam. Outlet protection needs to be shown.   | tm       |               |

#### **R647-4-106 - Operation Plan**

##### **106.2 - Type of operations conducted, mining method, processing etc.**

| Comment # | Sheet/Page/Map/Table # | Comments   | Initials | Review Action |
|-----------|------------------------|--|----------|---------------|
| 11        | Page 1, Attachment A   | Please identify on the map where explosives will be kept. Also, since this project is adjacent to a public road, please describe the blasting protocol that will be used to warn and protect the public. | lk       |               |

##### **106.3 - Estimated acreages disturbed, reclaimed, annually**

| Comment # | Sheet/Page/Map/Table # | Comments  | Initials | Review Action |
|-----------|------------------------|---|----------|---------------|
| 12        | Page 6 NOI Form        | Please clarify that the 79.9 acres of actual mining area includes 2 acres of overburden/waste dumps, 2 acres of ore and product stockpiles, and 0.5 acres of access road. If this is not correct, please redo the total acreage to add the appropriate additional acreage associated with these facilities. | lk       |               |



**106.5 - Existing soil types, location, amount**

| Comment # | Sheet/Page/Map/Table #       | Comments   | Initials | Review Action |
|-----------|------------------------------|--|----------|---------------|
| 13        | Attachment A, page 3         | What is the basis for the 484 cubic yards per acre? Is this the total amount of soil available, the amount of soil being salvaged, or is this what a soil scientist has stated is needed for reclamation? If one assumes the mid-point of the range (0-15 inches) as the average amount available, then there should be approximately 1000 cubic yards/acre available. Please clarify.   | lk       |               |
| 14        | Attachment A, Pages 3 and 11 | <p>Comments in this section apply to rules R647-4-106.5 and R647-110.5 and Sections 106.5 and 110.5. The Division recommends that fertilization plans be based on soil analyses done at the time of reclamation. Otherwise, please clarify the plan for fertilizing the soil. Page 3 says a 20-20-20 fertilizer will be spread, presumably on the topsoil although it doesn't say at what rate, but page 11 says a 16-16-8 fertilizer will be spread on topsoil at the rate of 100 pounds per acre.</p> <p>Depending on how much topsoil is spread, it is not normally necessary to fertilize the subsoil, but subsoil fertility becomes more critical if only a few inches of topsoil are applied. The Division will be able to comment further after the soil salvage plan has been clarified.</p> <p>Generally, the use of fertilizers are not needed to establish the species for reclamation, unless the soil fertility has major deficiencies. Otherwise, the use of commercial fertilizers tends to promote weedy vegetation at the expense of the desired species.</p> | lk       |               |

**106.6 - Plan for protecting & re-depositing soils**

| Comment # | Sheet/Page/Map/Table # | Comments   | Initials | Review Action |
|-----------|------------------------|--|----------|---------------|
| 15        | Page 7 NOI Form        | This section indicates only 25 cubic yards of topsoil will be salvaged. Yet the plan says 6 inches of topsoil will be replaced during reclamation (approximately 800 cubic yards per acre). Twenty-five cubic yards will only cover 1350 square feet. Where will the rest of the needed soil be obtained? Approximately 16,500 cubic yards is needed for 20 acres. | lk       |               |
| 16        | Page 7 NOI Form        | Please describe how topsoil will be salvaged, stockpiled, and protected from further impacts until it is needed for reclamation.   | lk       |               |



**106.7 - Existing vegetation - species and amount**

| Comment # | Sheet/Page/Map/Table # | Comments   | Initials | Review Action |
|-----------|------------------------|--|----------|---------------|
| 17        | Page 8 NOI Form        | When weather conditions allow, the Division would like to verify the vegetation cover data. In 1999 the Division measured vegetation cover of 50 percent, significantly different than the value of 23 percent reported in the plan. | lk       |               |

**106.8 - Depth to groundwater, extent of overburden, geology**

| Comment # | Sheet/Page/Map/Table # | Comments  | Initials | Review Action |
|-----------|------------------------|---|----------|---------------|
| 18        | Page 8 NOI Form        | Please provide a narrative description of the geology of this area. | lk       |               |

**106.9 - Location & size of ore, waste, tailings, ponds**

| Comment # | Sheet/Page/Map/Table # | Comments   | Initials | Review Action |
|-----------|------------------------|--|----------|---------------|
| 19        | Page 9 NOI Form        | See comment 1 concerning formatting of the plan. The requirements of this rule are addressed in an appendix rather than in the body of the plan. | lk       |               |

**R647-4-107 – Operation Practices**

| Comment # | Sheet/Page/Map/Table # | Comments  | Initials | Review Action       |
|-----------|------------------------|---|----------|---------------------|
| 20        | Page 9 NOI Form        | This section of the rules contains the performance standards with which a mining operation is expected to comply. There is no requirement to address these items in the NOI. The NOI correctly identifies fuels as deleterious materials and discusses the secondary containment berm around the fuel storage. Please note that the secondary containment needs to be a minimum of 110% of the capacity of the fuel storage tank. | lk       | No response needed. |

**R647-4-108 - Hole Plugging Requirements**

| Comment # | Sheet/Page/Map/Table # | Comments       | Initials | Review Action |
|-----------|------------------------|----------------|----------|---------------|
| 21        | Page 9 NOI Form        | See comment 1. | lk       |               |



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## **R647-4-110 - Reclamation Plan**

### **110.1 - Current & post mining land use**

| Comment # | Sheet/Page/Map/Table #          | Comments   | Initials | Review Action |
|-----------|---------------------------------|--|----------|---------------|
| 22        | Page 11<br>Attachment A, page 9 | Unless a wildlife-proof fence is erected around the mine area, wildlife habitat will necessarily be part of the postmining land use. Please change the wording in the NOI to include wildlife use as part of the land use. | lk       |               |

### **110.2 - Roads, highwalls, slopes, drainages, pits, etc., reclaimed**

| Comment # | Sheet/Page/Map/Table # | Comments  | Initials | Review Action |
|-----------|------------------------|---|----------|---------------|
| 23        | Page 11,<br>NOI Form   | See general formatting discussion under R647-4-106.9  | lk       |               |
| 24        |                        | There is not an adequate description of the reclamation of the surface water drainage following mining. This description needs to show the location of the reclaimed drainage with rock check dams and describe the size of the channel and any additional riprap protection needed to make the drainage stable. Please provide a schematic of the rock checks and describe how they will be installed and built, including dimensions and size of rock.  | tm       |               |
| 25        | Attachment A, Page 10  | The discussion under Section 106.9 indicates that the water containment pond—different from the sediment pond—would be 15 feet deep, but Section 110.2 says it would be 10 feet deep. Please resolve the discrepancy.<br><br>Section 106.9 also says the pond would only be constructed if it is determined that a wash plant is necessary. Section 110.2, however, leads one to believe that there will be a wash plant and that the pond will be constructed. Please clarify. If the wash plant and pond are constructed, the reclamation cost estimate needs to include these facilities, and they need to be shown on the surface facilities map. | lk       |               |



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### 110.3 - Description of facilities to be left (post mining use)

| Comment # | Sheet/Page/Map/Table # | Comments       | Initials | Review Action |
|-----------|------------------------|----------------|----------|---------------|
| 26        | Page 13, NOI Form      | See comment 1. | lk       |               |

### 110.4 - Description or treatment/disposition of deleterious or acid forming material

| Comment # | Sheet/Page/Map/Table # | Comments   | Initials | Review Action |
|-----------|------------------------|--|----------|---------------|
| 27        | Page 13, NOI Form      | See comment 1.   | lk       |               |
| 28        | Attachment A, Page 10  | Please refer to comments regarding deleterious materials under R674-4-107. | lk       |               |

### 110.5 - Revegetation planting program

| Comment # | Sheet/Page/Map/Table # | Comments   | Initials | Review Action |
|-----------|------------------------|--|----------|---------------|
| 29        | Page 13, NOI Form      | See comment 1.   | lk       |               |
| 30        | Attachment A, Page 11  | See comments under 106.5.  | lk       |               |
| 31        | Attachment A, Page 10  | It is unlikely that the proposed seed mix will provide for a permanent, diverse vegetation cover needed for the intended post mining land use. The following changes are suggested to meet this goal: 1) The seeding rate is too heavy for drill seeding. Seeding rates need to be reduced to a total of about 10-12 lbs/acre. Also, consider broadcast seeding, especially if only a few acres will be reclaimed each year. 2) To be consistent with the land owner's desires that species be suitable for the elevation, temperatures and precipitation at this location, consider elimination of crested wheatgrass, Russian wild rye, and Indian ricegrass. These species are more adapted to dryer, lower elevations (less than 14" annual precipitation and less than 6500' elevation). Add to the mix basin wild rye at 1 pound PLS/acre. Reduce the seeding rate of big sage to 0.1 pound PLS/acre. (this should also specify mountain big sage). Consider adding snowberry or woods rose at 0.5 pounds PLS/acre, and add serviceberry at 0.5 pounds PLS/acre. Finally bitterbrush should not be considered an optional species as it provides a good forage for both grazing and wildlife species. Seeding rates should be listed in pounds of pure live seed (PLS) per acre. | lk       |               |



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**R647-4-113 – Surety**

| Comment # | Sheet/Page/Map/Table # | Comments   | Initials | Review Action |
|-----------|------------------------|--|----------|---------------|
| 33        | Reclamation Plan       | Please provide a detailed reclamation cost estimate. The plan should be based on the maximum amount of disturbance that will exist. The Division has forms that should be used so that the bonds are calculated in a standard way. | whw      |               |